

THE SAFETY GAP

Leaping from Human-Centric Insight to Technological Solution



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BREAKING ASSUMPTIONS

Frameworks are built on assumptions that rely on convention — but paradigms are shifting.



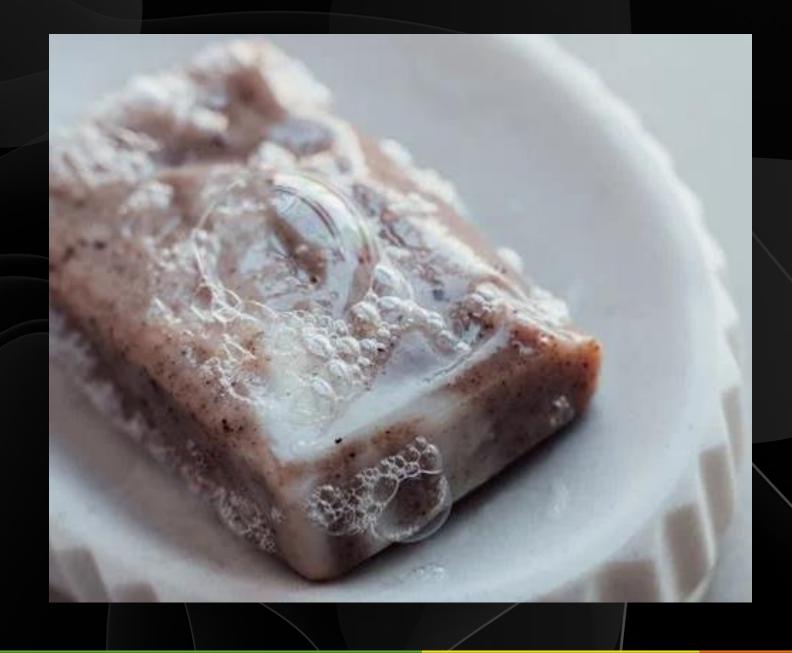
GETTING IT WRONG

Assumption:

Free from germs = safer

Consumer perspective:

"Skin-compatible hygiene" that overcomes "skin microbiome disruption"



AGENDA

01 The safety gap

O2 Innovating across safety gaps

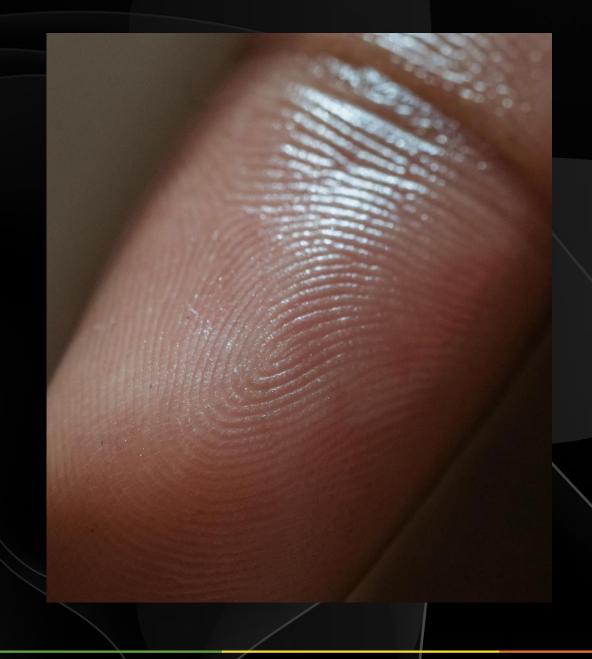
03 Prioritization

THE SAFETY GAP

Enterprises connect safety to materiality but leave out the consumer

Most high-priority topics align to safety

- Water, sanitation, and hygiene (WASH)
- GMOs and product traceability
- Food safety





The consumer DOES NOT think about safety the same way you do

AGENDA

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03 Prioritization

SAFETY GAP DECONSTRUCTION

To bridge the safety gap, reassess assumptions across the value chain

When you identify a potential safety gap:

- Measure consumer sentiment for key themes
- 2) Select innovations that align to culturally relevant concerns



SOURCE

PROCESS

PRODUCT



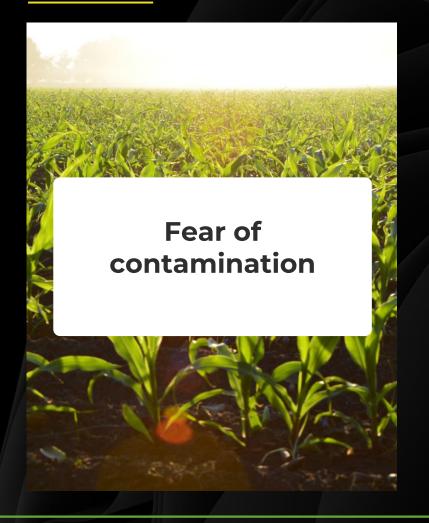




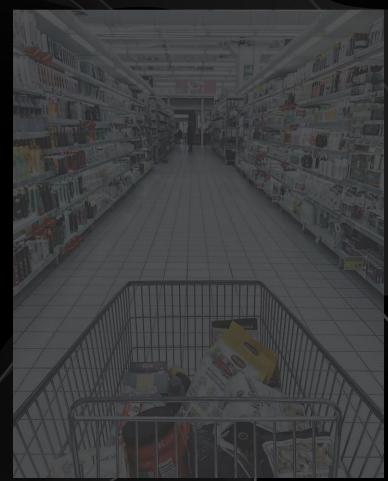
SOURCE

PROCESS

PRODUCT







ORGANIC PRACTICES

Safe = pure (free from pesticides, GMOs, etc.)

Safe = traceable and accountable

THEME:

0

Concerns about organic farming practices

UNDERLYING SYMBOLISM:

The cultivation of health and environment

KEY INSIGHT:

There is a heightened concern for the environmental and health implications of organic farming methods among consumers.

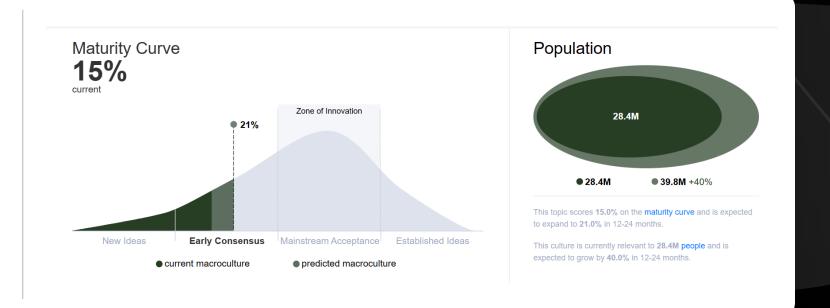


"I support organic farming, but I'm concerned about the actual practices and their impact on the environment and our health."

ORGANIC AS A BROKEN PROMISE

Maturity

Anticipating strong growth over the next 1–2 years while remaining in **early consensus**



LUX TAKE

Consumers increasingly worry that organic labels might not actually represent a food's wholeness, purity, and freedom from chemicals like copper sulfate.

PESTICIDE ALTERNATIVES FOR ORGANIC

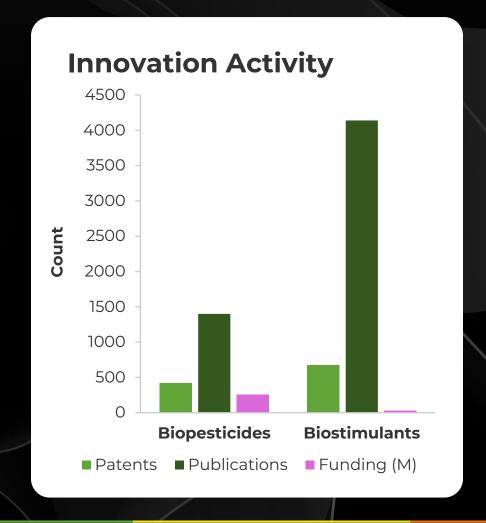
Alternative pest control drives new business, portfolio expansion, and ESG goal setting





LUX TAKE

Products are broad spectrum or targeted, but broad spectrum drives momentum, which aligns weakly to consumer sentiment but solves agriculture needs.



DELIVERING ON ORGANIC'S PROMISE

Solutions and sentiment are entangled, but not aligned

With the expansion of biopesticides, targeted approaches align better with consumer sentiment compared with broad-spectrum replacements.

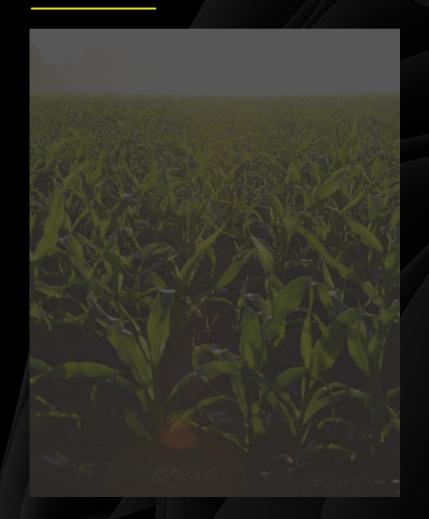
Connection of any pest control solution to an integrated pest management strategy will help avoid numerous challenges but requires more effort.

The needs of agriculture production and consumers are at odds, even when it comes to alternatives.

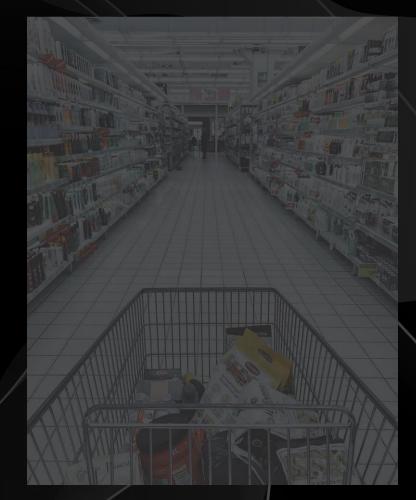
SOURCE

PROCESS

PRODUCT







PRECISION FERMENTATION

Safe = recognizable (by the consumer *and* their immune system)

Safe = tried and tested

THEME:

Health impacts of novel food technologies

UNDERLYING SYMBOLISM:

Concerns over long-term effects of biotech on health

KEY INSIGHT:

The potential health impacts of consuming precision-fermented products are a significant concern for consumers, highlighting the need for thorough safety studies.

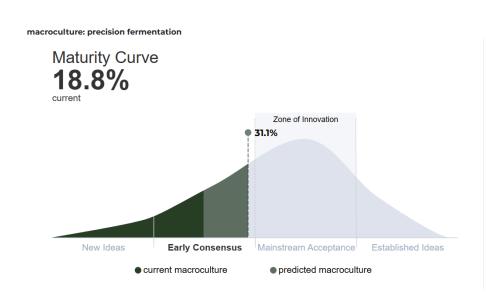


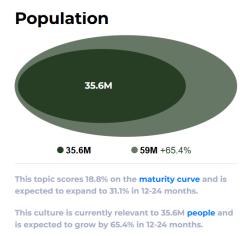
"I've heard about the benefits, but what about the long-term health effects? We need solid safety studies on these new foods before I feel comfortable eating them regularly."

PRECISION FERMENTATION

Maturity

Rapidly approaching the edge of **mainstream acceptance** in two years.





LUX TAKE

Consumers think precision fermentation could make protein more sustainable and available. But they aren't willing to risk their safety, fearing long-term health effects and new allergies.

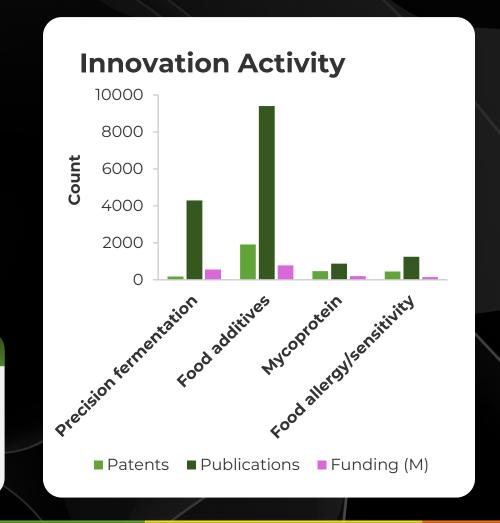
ENVIRONMENTAL IMPACT VS. SAFETY

Many innovations target platforms capable of meeting sustainability goals first unless they are in response to materials of concern.



LUX TAKE

You must plan beyond a single hype cycle toward systemslevel thinking, especially as innovation ownership transitions from startup to enterprise scale.



FERMENTATION IS UP FOR GRABS

Consumer education level is an important unknown

New innovations receive the funding to move toward scale but clearly struggle to build brands.

Consumers have unaddressed issues with novel options, whether fact or perception, which are impacting market penetration.

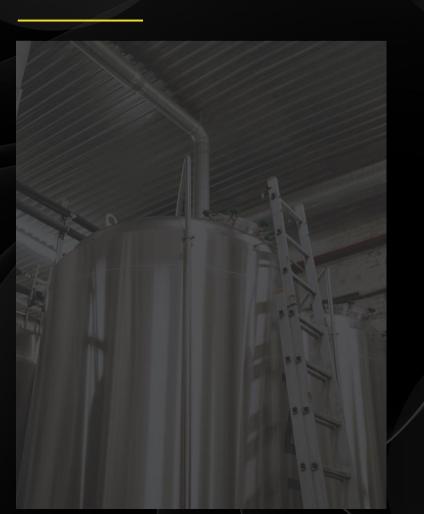
Expect to face the challenging intersection of sustainability when it comes to health and environmental impact.

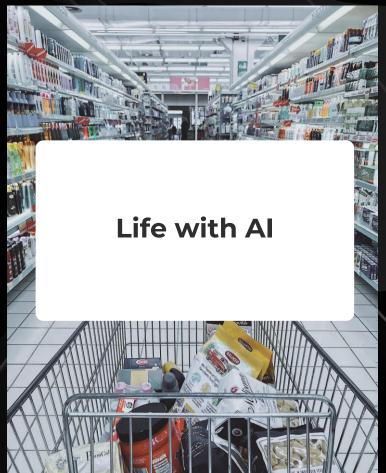
SOURCE

PROCESS

PRODUCT







REPLICATING BIASES

Safe = individual

Safe = transparent

THEME:

Anxiety Over AI Bias and Ethics

UNDERLYING SYMBOLISM:

The embodiment of societal and moral values

KEY INSIGHT:

Consumers are deeply concerned about Al systems perpetuating biases and lacking ethical oversight, fearing a future where Al ethics are not aligned with human values.

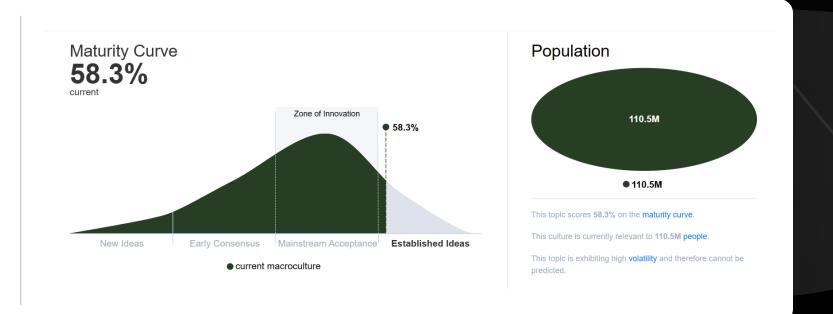


"I'm worried that AI doesn't understand fairness like we do. What if it makes decisions that are biased or unethical? We need to make sure AI reflects our values."

REPLICATING BIASES

Maturity

Consumer beliefs around AI are already **mature**, but they remain **volatile**.



LUX TAKE

Consumers think AI needs to be aligned with who we want to be — not who we are. They believe AI could easily worsen issues of bias and discrimination while making them harder to detect.

EARLY STAGE FEVER-PITCH PACE

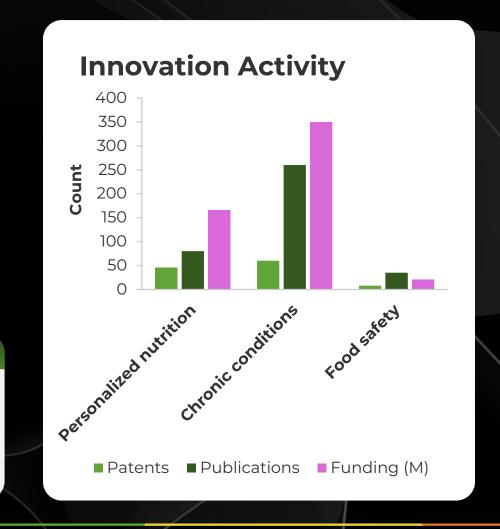
Innovators are rapidly identifying use-cases and building insight engines with little obstruction





LUX TAKE

While lawsuits in healthcare are underway and policy frameworks are emerging, consumer use-cases fall in a gray zone, which will require internal assessment.



CONSUMERS WATCH FOR AI BIAS

Onus is on the innovator

Policy will evolve but will revolve around harm vs. exclusion or bias for consumer applications.

Build or understand existing benchmarks to prevent consumer alienation and drive validity.

AGENDA

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BEYOND ORGANIC

While organic grows linearly, ROC drives niche market acceleration

USD 40 million in sales + 22% YOY growth

174 certified farms

5.7 million acres

LUX TAKE

By moving beyond organic standards and including the quantitative impact of improved practices, ROC shifts the conversation to address consumer and grower needs.







THE ORDINARY IS UNIQUE

100% plant-derived squalene: pure product, transparent reviews, giving the consumer control



KEY TAKEAWAYS

Assumptions lead to gaps between how companies and consumer see safety.

Failures of innovation often result when the core needs of the target market are generalized or built on the hype cycle.

2

Individual safety gaps require individual assessments.

Even though you correctly identify a high-impact area spanning the business and your stakeholders, execution falls flat when you misunderstand the "how" and "why."

3

Innovating across safety gaps requires systems-level thinking.

Success requires that you move beyond hype cycles and organizational silos. It requires disparate data types that connect maturity and momentum at both the technology and consumer levels.

ACTION ITEMS

- Reassess your materiality matrix at the innovation-unit level.
 - It may be that your matrix aligns on the priority level, but clearly understanding the details makes it actionable.
- 2 Consider the evolving education level of consumers on emerging topics.
 - The ability to learn rapidly is also advancing rapidly. Be prepared for a consumer who knows more than you expect.
- **3** Don't forget about regional discrepancies.
 - It is dangerous to generalize insight across regions. While innovations may be transferable, consumer readiness is not.
- **4** Use MotivAl to double-check your innovation or product roadmap.
 - Ensure the solutions you're developing align with consumer understanding. Otherwise, the solution might not be solving the right problem.



THANK YOU

WEBINAR

JUNE 27

How to Implement AI in your CPG Innovation Workflow to Maximize Outcomes



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